



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

10/518,601

Source:

PCT

Date Processed by STIC:

12-28-04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

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- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):  
U.S. Patent and Trademark Office, 220 20<sup>th</sup> Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

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Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>10/518,001</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input checked="" type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input checked="" type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input checked="" type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input checked="" type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input checked="" type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>.<223> section that some may be missing	
6 <input checked="" type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>.<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>.<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>.<223> sections for Artificial or Unknown sequences.	
7 <input checked="" type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO X (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading) (ii) SEQUENCE DESCRIPTION SEQ ID NO X (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
8 <input checked="" type="checkbox"/> Skipped Sequences (NEW RULES)	Please also adjust the "(ii) NUMBER OF SEQUENCES" response to include the skipped sequences. Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: <210> sequence id number <400> sequence id number 000	
9 <input checked="" type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing Per 1.823 of Sequence Rules, use of <220>.<223> is MANDATORY if n's or Xaa's are present In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents	
10 <input checked="" type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are Unknown, Artificial Sequence, or scientific name (Genus/species). <220>.<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input checked="" type="checkbox"/> Use of <220>	Sequence(s) 2,4,6,8,10,12,14,16,18,20,22,24,26,35,36 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 00/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input checked="" type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input checked="" type="checkbox"/> Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



PCT

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/518,001

DATE: 12/28/2004  
TIME: 11:47:34

Input Set : D:\Protam1  
Output Set: N:\CRF4\12282004\J518001.raw

3 <110> APPLICANT: EBL GmbH  
5 <120> TITLE OF INVENTION: Method for the production of protamine  
7 <130> FILE REFERENCE: Protamin  
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/518,001  
C--> 10 <141> CURRENT FILING DATE: 2004-12-14  
12 <160> NUMBER OF SEQ ID NOS: 36  
14 <170> SOFTWARE: PatentIn Ver. 2.1

Does Not Comply  
Corrected Diskette Needed  
(PS.1-5) ✓

## ERRORED SEQUENCES

42 <210> SEQ ID NO: 2  
43 <211> LENGTH: 33  
44 <212> TYPE: PRT  
45 <213> ORGANISM: Oncorhynchus mykiss  
46 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
47 sequence  
48 <400> SEQUENCE: 2  
50 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
51 1 5 10 15  
53 Arg Pro Arg Val Ser Arg Arg Arg Arg Gly Gly Arg Arg Arg  
54 20 25 30

pls insert <2207 Feature>  
whenever <221>, <222>  
or <223>  
is shown.

OK

56 Arg  
57 <210> SEQ ID NO: 4  
58 <211> LENGTH: 33  
59 <212> TYPE: PRT

pls insert <2207>, whenever  
<221>, <222> or <223>

OK

60 <213> ORGANISM: Oncorhynchus mykiss  
61 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
62 sequence  
63 <400> SEQUENCE: 4  
64 Met Pro Arg Arg Arg Arg Ser Ser Arg Pro Pro Val Arg Arg Arg Arg  
65 1 5 10 15  
66 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg  
67 20 25 30

is shown.

See

item

# 11

on error  
summary sheet.

68 <210> SEQ ID NO: 6  
69 <211> LENGTH: 33  
70 <212> TYPE: PRT  
71 <213> ORGANISM: Oncorhynchus mykiss  
72 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
73 sequence  
74 <400> SEQUENCE: 6  
75 Met Pro Arg Arg Arg Arg Ser Ser Arg Arg Pro Val Arg Arg Arg Arg

same error ↗

OK

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/518,001

DATE: 12/28/2004  
TIME: 11:47:34

Input Set : D:\Protamil  
Output Set: N:\CRF4\12282004\J518001.raw

141 1 5 10 15  
143 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg  
144 20 25 30  
146 Arg  
177 <210> SEQ ID NO: 8  
178 <211> LENGTH: 33  
179 <212> TYPE: PRT  
180 <213> ORGANISM: Oncorhynchus mykiss  
181 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
182 sequence  
EKC 184 <400> SEQUENCE: 8  
185 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
186 1 5 10 15  
188 Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Arg Arg Arg Arg  
189 20 25 30  
191 Arg  
222 <210> SEQ ID NO: 10  
223 <211> LENGTH: 33  
224 <212> TYPE: PRT  
225 <213> ORGANISM: Oncorhynchus mykiss  
226 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
227 sequence  
EKC 229 <400> SEQUENCE: 10  
230 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
231 1 5 10 15  
233 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Arg Gly Arg Arg Arg Arg  
234 20 25 30  
236 Arg  
267 <210> SEQ ID NO: 12  
268 <211> LENGTH: 33  
269 <212> TYPE: PRT  
270 <213> ORGANISM: Oncorhynchus keta  
271 <223> OTHER INFORMATION: aa sequence derived from ORF of nucleotide  
272 sequence  
EKC 274 <400> SEQUENCE: 12  
275 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
276 1 5 10 15  
278 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg Arg  
279 20 25 30  
281 Arg  
312 <210> SEQ ID NO: 14  
313 <211> LENGTH: 33  
314 <212> TYPE: PRT  
315 <213> ORGANISM: Oncorhynchus mykiss  
316 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
317 sequence  
EKC 319 <400> SEQUENCE: 14  
320 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
321 1 5 10 15

(acc)

Same errors

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/518,001

DATE: 12/28/2004  
TIME: 11:47:34

Input Set : D:\Protamii1  
Output Set: N:\CRF4\12282004\J518001.raw

*OK SAME errors*

323 Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg  
324 20 25 30  
326 Arg  
354 <210> SEQ ID NO: 16  
355 <211> LENGTH: 31  
356 <212> TYPE: PRT  
357 <213> ORGANISM: Oncorhynchus mykiss  
358 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
359 sequence  
361 <400> SEQUENCE: 16  
362 Met Pro Arg Arg Arg Arg Ala Ser Arg Arg Val Arg Arg Arg Arg Arg  
363 1 5 10 15  
365 Pro Arg Val Ser Arg Arg Arg Arg Gly Gly Arg Arg Arg Arg Arg  
366 20 25 30  
393 <210> SEQ ID NO: 18  
394 <211> LENGTH: 31  
395 <212> TYPE: PRT  
396 <213> ORGANISM: Oncorhynchus mykiss  
397 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
398 sequence  
400 <400> SEQUENCE: 18  
401 Met Pro Arg Arg Arg Arg Ala Ser Arg Arg Ile Arg Arg Arg Arg Arg  
402 1 5 10 15  
404 Pro Arg Val Ser Arg Arg Arg Arg Gly Gly Arg Arg Arg Arg Arg  
405 20 25 30  
435 <210> SEQ ID NO: 20  
436 <211> LENGTH: 33  
437 <212> TYPE: PRT  
438 <213> ORGANISM: Oncorhynchus mykiss  
439 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
440 sequence  
442 <400> SEQUENCE: 20  
443 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Ile Arg Arg Arg  
444 1 5 10 15  
446 Arg Arg Pro Arg Val Ser Arg Arg Arg Arg Gly Gly Arg Arg Arg  
447 20 25 30  
449 Arg  
477 <210> SEQ ID NO: 22  
478 <211> LENGTH: 31  
479 <212> TYPE: PRT  
480 <213> ORGANISM: Clupea harengus  
481 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
482 sequence  
484 <400> SEQUENCE: 22  
485 Met Pro Arg Arg Arg Thr Arg Arg Ala Ser Arg Pro Val Arg Arg Arg  
486 1 5 10 15  
488 Arg Pro Arg Arg Val Ser Arg Arg Arg Arg Ala Arg Arg Arg Arg  
489 20 25 30  
518 <210> SEQ ID NO: 24

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/518,001

DATE: 12/28/2004  
TIME: 11:47:34

Input Set : D:\Protamil  
Output Set: N:\CRF4\12282004\J518001.raw

519 <211> LENGTH: 32  
520 <212> TYPE: PRT *Same error*  
521 <213> ORGANISM: Clupea harengus  
522 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
sequence

OK > 525 <400> SEQUENCE: 24  
526 Met Ala Arg Arg Arg Arg Ser Arg Arg Ala Ser Arg Pro Val Arg Arg  
527 1 5 10 15  
529 Arg Arg Pro Arg Arg Val Ser Arg Arg Arg Arg Ala Arg Arg Arg Arg  
530 20 25 30

559 <210> SEQ ID NO: 26  
560 <211> LENGTH: 32  
561 <212> TYPE: PRT *Same error*  
562 <213> ORGANISM: Clupea harengus  
563 <223> OTHER INFORMATION: nucleotide sequence derived from amino acid  
sequence

OK > 566 <400> SEQUENCE: 26  
567 Met Ala Arg Arg Arg Ser Ser Ser Arg Pro Ile Arg Arg Arg Arg  
568 1 5 10 15  
570 Pro Arg Arg Arg Thr Thr Arg Arg Arg Arg Ala Gly Arg Arg Arg Arg  
571 20 25 30

803 <210> SEQ ID NO: 35

804 <211> LENGTH: 22

805 <212> TYPE: PRT

806 <213> ORGANISM: Artificial Sequence

w--> 807 <220> FEATURE: *pls insert this mandatory numeric identifier.*  
807 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning  
808 sequence for expression of Protamine

OK > 810 <400> SEQUENCE: 35  
811 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala  
812 1 5 10 15  
813 Ala Gln Pro Ala Met Ala  
814 20

817 <210> SEQ ID NO: 36

818 <211> LENGTH: 33

819 <212> TYPE: PRT

820 <213> ORGANISM: Artificial Sequence

w--> 821 <220> FEATURE: *pls insert this mandatory numeric identifier.*  
821 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning  
822 sequence for expression of Protamine

OK > 824 <400> SEQUENCE: 36  
825 Met Pro Arg Arg Arg Arg Ser Ser Ser Arg Pro Val Arg Arg Arg Arg  
826 1 5 10 15  
827 Arg Pro Arg Val Ser Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg Arg  
828 20 25 30  
829 Arg

*C see item  
# II on error  
Summary sheet*

10/5/18, 001

Page 5

<210> 13  
<211> 102  
<212> DNA  
<213> Oncorhynchus mykiss

<220>  
<221> CDS  
<222> (1)..(99)

<220>  
<223> nucleotide sequence derived from amino acid sequence

<400> 13  
atg ccc aga aga cgc aga tcc tcc agc cga cct gtc cgc agg cgc cgc 48  
Met Pro Arg Arg Arg Ser Ser Arg Pro Val Arg Arg Arg Arg  
1 5 10 15

cgc gdn agg gtg tcc cga cgt cgc agg aga gga ggc cgc agg agg 96  
Arg Ala Arg Val Ser Arg Arg Arg Arg Arg Gly Gly Arg Arg Arg  
20 25 30

cgt tag  
Arg

pls explain "N" location.  
See error explanation  
on page 6.

The type of errors shown exist throughout  
the Sequence Listing. Please check subsequent  
sequences for similar errors.

VARIABLE LOCATION SUMMARY  
PATENT APPLICATION: US/10/518,001

DATE: 12/28/2004  
TIME: 11:47:35

Input Set : D:\Protamil  
Output Set: N:\CRF4\12282004\J518001.raw

Use of n's or Xaa's(NEW RULES): Error Explanation: ✓  
Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.  
in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:13; N Pos. 54  
Seq#:15; N Pos. 21,30  
Seq#:17; N Pos. 21,30  
Seq#:21; N Pos. 27  
Seq#:23; N Pos. 30  
Seq#:27; N Pos. 30  
Seq#:28; N Pos. 9,12,18,42,57,78,81,93,96  
Seq#:33; Xaa Pos. 1,2,6,7,8,9,10,11,12,13,14,19,20,22,23,24,25,29,30,31,32  
Seq#:33; Xaa Pos. 36

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/518,001

DATE: 12/28/2004

TIME: 11:47:35

Input Set : D:\Protamil  
Output Set: N:\CRF4\12282004\J518001.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:49 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:2  
L:94 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:4  
L:139 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:6  
L:184 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:8  
L:229 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:10  
L:274 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:12  
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:48  
L:319 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:14  
L:345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:361 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:16  
L:384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:400 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:18  
L:442 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:20  
L:468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0  
L:484 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:22  
L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
L:525 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:24  
L:566 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:26  
L:584 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:27  
L:584 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:27  
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0  
L:597 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:28  
L:597 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:28  
L:597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0  
M:341 Repeated in SeqNo=28  
L:729 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:33  
L:729 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:33  
L:729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0  
M:341 Repeated in SeqNo=33  
L:807 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:35  
L:810 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:35  
L:821 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:36  
L:824 M:200 E: Mandatory Header Field missing, <220> Tag not found for SEQ ID#:36

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